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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/689,104	10/12/2000	Masashi Nogawa	TIJ-28802	6438

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EXAMINER

NGUYEN, JIMMY H

ART UNIT	PAPER NUMBER
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2673

13

DATE MAILED: 08/13/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/689,104

Applicant(s)

NOGAWA, MASASHI

Examiner

Jimmy H. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-19 and 21-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12-16, 18 and 21-27 is/are rejected.
- 7) ☒ Claim(s) 17 and 19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 13 May 2003 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Request for Continued Examination

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 05/13/2003 has been entered. Claims 12-19 and 21-27 are currently pending in the application. An action on the RCE follows:

Claim Objections

2. Claim 12 is objected to because of the following informalities:
- line 1, delete "and",
- line 2, change "form. A" to -- form and a --, and
- lines 3, 8 and 9, insert "said" immediately before "display", so as to improve its form to conform with U.S. claim drafting practice. Appropriate correction is required.
3. Claim 14 is objected to because of the following informalities: line 2, "one LED" should be changed to -- one of said LEDs --, because of its antecedent basis. Appropriate correction is required.
4. Claim 17 is objected to because of the following informalities: line 2, "one switch" should be changed to -- one of said switches --, and "each LED" should be changed to -- each of said LEDs --, because of their antecedent basis. Appropriate correction is required.

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5. Claim 19 is objected to because of the following informalities: line 2, "each switch" should be changed to -- each of said switches --, because of its antecedent basis. Appropriate correction is required.

6. Claim 21 is objected to because of the following informalities: line 2, "a scan line" should be changed to -- each of said scan lines --, and line 3, "a" should be changed to -- the --, because of their antecedent basis (see claim 12). Appropriate correction is required.

7. Claim 22 is objected to because of the following informalities: line 1, "each buffer circuit" should be changed to -- each of said buffer circuits --, and line 2, "its respective scan line" should be changed to -- the respective scan line--, because of their antecedent basis (see claims 12 and 21). Appropriate correction is required.

Claim Rejections - 35 USC § 112

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 16 and 23-26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding to claim 16, this claim recites the limitation "the matrix" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Regarding to claims 23-26, these claims 16 recite the limitation "the reference potential" in line 2 of these claims. There is insufficient antecedent basis for this limitation in the claims.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

11. Claims 12, 16, 18, 21-24, 26 and 27 are rejected under 35 U.S.C. 102(a) as being anticipated by Applicant's Admitted Prior Art, hereinafter AAPA.

As per claims above, as noting in figures 7-8 and the corresponding description, the claimed invention is read by AAPA as follows: AAPA discloses a LED dot matrix display comprising a plurality of scan lines (CL0-CL3), a plurality of signal lines (RL1-RL3) arranged in a matrix, a plurality of display elements (LED₀₁, LED₁₁, LED₂₁, LED₃₁, LED₀₂, LED₁₂, LED₂₂, LED₃₂, LED₀₃, LED₁₃, LED₂₃, LED₃₃), and a circuit (a circuit comprising elements LED₀₀, LED₁₀, LED₂₀, LED₃₀, a switch F₀, a current source J₀ and ground potential, specifically at fig. 7) to reduce erroneous activation of the display elements, the circuit comprising a reduced voltage source at the reference potential (the ground potential connected to a current source J₀) and a discharge circuit (a circuit including elements LED₀₀, LED₁₀, LED₂₀, LED₃₀, a switch F₀ and a current source J₀) including a switch F₀, a current source J₀, and a plurality of LED₀₀, LED₁₀, LED₂₀ and LED₃₀, as a plurality of scan line buffer circuits, all arranged in one column of the matrix and each coupling the scan line to the reduced voltage source at a time when the signal line RL1 is not activating or not driving the display elements (LED₀₁, LED₁₁, LED₂₁, LED₃₁) because the switch F₀ is ON and the switch F₁ is OFF (fig. 8, page 2, lines 9-19), and to a driving voltage source V_{BB} when driving the display elements (LED₀₁, LED₁₁, LED₂₁, LED₃₁) because

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the switch F_0 is OFF and the switch F_1 is ON (fig. 8 and page 2, lines 20-32). The elements in the claims are read in the reference.

Allowable Subject Matter

12. Claims 17 and 19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims, and if overcome the objection above.

13. Claim 25 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

14. The following is a statement of reasons for the indication of allowable subject matter: the claimed invention is directed to a LED dot matrix display device comprising a circuit to reduce erroneous activation of the display elements. The dependent claim 17 identifies the uniquely distinct feature “a plurality of switches, one switch being coupled between each LED and the reduced voltage source”. The closest art, AAPA, as discussed above, discloses only one switch (F_0) coupled between the LEDs (LED_{00} , LED_{10} , LED_{20} and LED_{30}) and the reduced voltage source, either singularly or in combination, fails to anticipate or render the above underlined limitations obvious.

Response to Arguments

15. Applicant's arguments with respect to the drawing objections to under 37 CFR 1.83(a) in the final Office Action are persuasive, the drawing objections are hereby withdrawn and the proposed fig. 2A is approved.

16. Applicant's argument on page 6 with respect to the rejection under 35 USC 112, first paragraph, to claims 12-27, in the final Office Action dated 03/25/2003, is persuasive in view of the newly amended independent claim 12.

17. Applicant's arguments on pages 7-8 with respect to the rejections under 35 USC 112, first paragraph, to claims 17 and 21, in the final Office Action dated 03/25/2003, are persuasive, these rejections are hereby withdrawn.

18. With respect to the rejection under 35 USC 102(a) to claims 12-27, Applicant's argument filed that AAPA does not teach "it does not couple the scan line to a reduced voltage source at a time when one of the signal lines is not activating all the display elements", page 8, last paragraph, lines 6-7, has been fully considered, it is not persuasive because as follows: (i) there is no word "all" present in claim 12, and (ii) as described more in the rejection above, the disclosure, specifically in fig. 8 and page 2, lines 9-19, teaches each coupling the scan line to the reduced voltage source at a time when the signal line RL1 is not activating or not driving the display elements (LED₀₁, LED₁₁, LED₂₁, LED₃₁) because the switch F₀ is ON and the switch F₁ is OFF.

Conclusion

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jimmy H. Nguyen whose telephone number is (703) 306-5422. The examiner can normally be reached on Monday - Thursday, 8:00 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached at (703) 305-4938.

Any response to this action should be mailed to:

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Commissioner of Patents and Trademarks

Washington, D.C. 20231


or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,
Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding
should be directed to the Technology Center 2600 Customer Service Office whose telephone
number is (703) 306-0377.

JHN
August 11, 2003



Jimmy H. Nguyen
Examiner
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